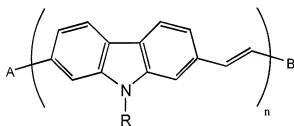


IN THE DESCRIPTION:

Please replace the paragraph starting at page 3 line 15 with the following paragraph:

According to the present invention there are provided organic-based electronic devices and methods of preparing such devices. These devices include Organic Field Effect Transistors (OFETs), Organic Light Emitting Diodes (OLEDs), and Organic Photovoltaic Cells (OPCs) and have as their active material a conjugated 2,7-carbazolenevinylene derivative of the formula (I):



(I)

wherein n is an integer ≥ 3 , R represents a ~~substituant~~ substituent that is a hydrogen, or linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, poly (ethyleneoxy), cyano, aryl group, amide group or benzoyl group, and A, B are any type of end-cap groups.

Please replace the paragraph starting at page 4 line 4 with the following paragraph:

For example, A and B end-cap groups can be selected from hydrogen, linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, cyano, fluoro, chloro, bromo, iodo, monovalent aromatic group, e.g. a phenyl, a naphthyl, and a anthryl group, or monovalent aromatic complex ring group having

one nitrogen atom as a hetero-atom, e.g. a pyrrolyl group, a pyridyl group, quinolyl group and a carbazolyl group. These aryl groups (aromatic groups) and aromatic complex ring groups may have, or need not have ~~substituents~~ substituents. For example, ~~substituents~~ substituents may be selected from a linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, acyl group, benzyl group, aryloxy group, alkoxy-carbonyl group, acyloxy group, acylamino group, halogen group, carboxyl group, hydroxy group, aminocarbonyl group, aryloxy-carbonyl group, aryl group, and further amino group represented by the general formula:



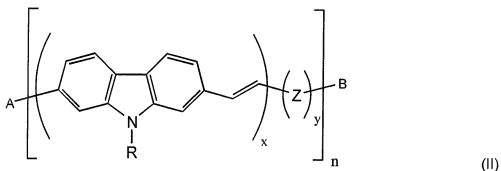
wherein M₁ and M₂ are each an hydrogen atom, or linear or branched alkyl group, acyl group such as an aldehyde group, a formyl group, an acetyl group and a propionyl group, aryl group and the like; M₁ and M₂ may be the same or different, and they may combine with each other to form a saturated five-membered ring or a saturated six-membered ring (these rings may be with or without a substituant substituent), and may combine with the substituents substituents on A and B to form a saturated five-membered ring or a saturated six-membered ring (these rings may be with or without a substituant substituent).

Please replace the paragraph starting at page 5 line 4 with the following paragraph:

In general formula (I), A and B may be the same or different, and the substituents substituents on A and B may combine with each other to form a saturated five-membered ring or a saturated six-membered ring (these rings may be with or without a substituent substituent).

Please replace the paragraph starting at page 5 line 9 with the following paragraph:

2,7-carbazolenevinylene monomers can also be alternated with other monomers to form oligomeric or polymeric materials according to the general formula (II):



wherein n is an integer ≥ 3 , R represents a substituent substituent that is a hydrogen, or linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, poly (ethyleneoxy), cyano, aryl group, amide group or benzoyl group, x is an integer between 1 to 1000, y is an integer between 0 to 1000, Z is any type of comonomer, and A, B are any type of end-cap groups.

Please replace the paragraph starting at page 6 line 4 with the following paragraph:

Examples of mononuclear/polynuclear aromatic group are: phenylene, fluorene, naphthalene, anthracene, tetracene, pyrene, perylene, rubrene, phenanthrene, naphthylene, acenaphthene, fluoranthene and chrysene. Examples of mononuclear/polynuclear heterocyclic internal groups include 5-member heterocyclic groups such as furan, thiophene, pyrrole, oxazole, isooxazole, oxadiazoles, thiazole, isothiazole, imidazole, thiadiazole and pyrazole; 6-member heterocyclic groups such as pyridine, pyridazine, pyrimidine, pyrazine, triazine and tetrazine; benzo-fused ring systems such as benzooxazole, benzothiazole, benzimidazole, quinoline, isoquinoline, cinnoline, quinazoline, quinoxaline, phthalazine, benzothiadiazole and benzotriazine; polynuclear fused condensed ring systems such as phenazine, phenanthridine, acridine and diphenylene oxide. Examples of tertiary arylamine groups include triphenylamine, N,N'-diphenylbenzidine, N,N'-diphenyl-1,4-phenylenediamine and diphenylnaphthylamine. Olefinic, aromatic, heterocycle and tertiary arylamines groups may be substituted optionally with one or more ~~substituents~~ substituents. Examples of ~~substituents~~ substituents include C₁-C₂₀ linear or branched alkyl group, C₁-C₂₀ linear or branched alkoxy group, cyano, fluoro, chloro, bromo, iodo, C₁-C₂₀ linear or branched alkylloxycarbonyl, C₁-C₂₀ linear or branched aryloxycarbonyl and poly (alkyleneoxy). Such ~~substituents~~ substituents may be selected to improve the solubility or processing characteristics of the materials.

Please replace the paragraph starting at page 6 line 25 with the following paragraph:

For example, A and B end-cap groups can be selected from hydrogen, linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, cyano, fluoro, chloro, bromo, iodo, monovalent aromatic group, e.g. a phenyl, a naphthyl, and a anthryl group, or monovalent aromatic complex ring group having one nitrogen atom as a hetero-atom, e.g. a pyrrolyl group, a pyridyl group, quinolyl group and a carbazolyl group. These aryl groups (aromatic groups) and aromatic complex ring

groups may have, or need not have substituents. For example, substituents may be selected from a linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, acyl group, benzyl group, aryloxy group, alkoxy-carbonyl group, acyloxy group, acylamino group, halogen group, carboxyl group, hydroxy group, aminocarbonyl group, aryloxycarbonyl group, aryl group, and further amino group represented by the general formula:



wherein M₁ and M₂ are each an hydrogen atom, or linear or branched alkyl group, acyl group such as an aldehyde group, a formyl group, an acetyl group and a propionyl group, aryl group and the like; M₁ and M₂ may be the same or different, and they may combine with each other to form a saturated five-membered ring or a saturated six-membered ring (these rings may be with or without a substituent), and may combine with the substituents on A and B to form a saturated five-membered ring or a saturated six-membered ring (these rings may be with or without a substituent).

Please replace the paragraph starting at page 8 line 8 with the following paragraph:

In general formula (II), A and B may be the same or different, and the substituents on A and B may combine with each other to form a saturated five-membered

ring or a saturated six-membered ring (these rings may be with or without a substituent).

Please replace the paragraph starting at page 17 line 5 with the following paragraph:

The device shown in Figure 2 consists of a n-type silicon wafer covered with a thermally grown SiO₂ film used as substrate, two gold electrodes (source and drain) on top of the substrate, a third ~~gallium-indium~~ gallium-indium electrode (gate) on the back side of the substrate, and a thin PT (polythiophene) layer. When a sufficiently high negative voltage is applied to the gate, an inversion layer forms at the insulator/semi-conductor interface and positive charges are created. By varying the applied voltage at the gate, the negative current between the source and drain through the PT layer is modulated.

Please replace the paragraph starting at page 18 line 1 with the following paragraph:

The device shown in Figure 5 consists of an Indium Tin Oxide transparent anode on a glass substrate, a thin CuPc (copper ~~phtalocyanine~~ phthalocyanine) layer, a thin PV (perylene tetracarboxylic) layer, and an Ag cathode. Under illumination through the transparent Indium Tin Oxide anode, charges are produced. When a sufficiently positive voltage is applied between the anode and the cathode, the photogenerated charges are transported and transferred to the electrodes.

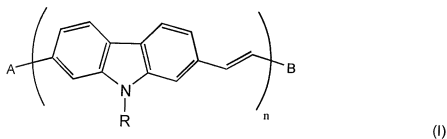
Please replace the paragraph starting at page 19 line 16 with the following paragraph:

In a second embodiment of the present invention as shown in Figure 9, an OFET was fabricated in the top contact geometry consisting of; a p-type silicon wafer covered with a thermally grown SiO_2 film used as a substrate, a thin CPC semi-conductor layer, a source and drain gold electrode on top of the organic semi-conductor layer, and a gate electrode on the back side of the substrate. Prior to use, each substrate ($15 \times 15 \text{ mm}^2$) is cleaned sequentially with acetone, ultrasonicated isopropanol at 80°C , and UV/ozone cleaner for 10 min. Then, the substrate was treated ~~suquentially~~ sequentially in a $\text{NH}_4\text{OH}/\text{H}_2\text{O}_2/\text{H}_2\text{O}$ (2:2:100) solution for 15 min, H_2O for 1 min, $\text{HCl}/\text{H}_2\text{O}_2/\text{H}_2\text{O}$ (2:2:100) solution for 15 min, H_2O for 1 min, dried with N_2 and put in the UV/ozone cleaner for 1 h. Then, the surface of the substrate was treated with hexamethyldisilazane (HMDS) on a vapor prime system at 150°C and 30 mmHg for 2 h prior to evaporation. In order, the organic semi-conductor CPC and gold are deposited by thermal evaporation at a pressure of 1×10^{-7} torr at a substrate temperature of 75°C and 25°C for gold. The gold source and drain electrodes are deposited on top of the organic semi-conductor through a shadow mask forming a top contact geometry with a channel length of $58 \mu\text{m}$ and a channel width of $1 \mu\text{m}$. An electrical wired bonded on the backside of the p-doped silicon wafer forms the gate electrode.

Please replace the paragraph starting at page 23 line 23 with the following paragraph:

In one embodiment of the invention there is provided an Organic Field Effect Transistor (OFET), an Organic Light Emitting Diode (OLED), and an Organic Photovoltaic Cell (OPC)

comprising active material including a conjugated oligomeric or polymeric 2,7-carbazolenevinylene derivative described by the formula (I):

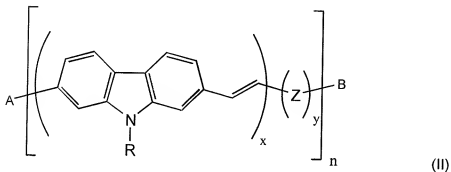


wherein n is an integer ≥ 3 , R represents a substituent that is a hydrogen, or linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, poly (ethyleneoxy), cyano, aryl group, amide group or benzoyl group, and A , B are any type of end-cap groups selected from the group consisting of hydrogen, linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, cyano group, halogen group, monovalent aromatic group, and monovalent aromatic complex ring group having one nitrogen atom as a hetero-atom.

Please replace the paragraph starting at page 24 line 13 with the following paragraph:

In another embodiment of the invention there is provided an Organic Field Effect Transistor (OFET), an Organic Light Emitting Diode (OLED), and an Organic Photovoltaic Cell (OPC) comprising active material including a conjugated 2,7-carbazolenevinylene derivative where

2,7-carbazolevinylene monomers can also be alternated with other monomers to form oligomeric or polymeric materials according to the general formula (II):



wherein n is an integer ≥ 3 , R represents a ~~substituant~~ substituent that is a hydrogen, or linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, poly (ethyleneoxy), cyano, aryl, amide or benzoyl, x is an integer between 1 to 1000, y is an integer between 0 to 1000, Z is any type of comonomer selected from the group consisting of ethylene, ~~acethylene~~ acetylene, C_3 - C_{22} mononuclear/polynuclear aromatic, C_2 - C_{10} mononuclear/polynuclear heterocyclic groups and tertiary arylamines, and A , B are any type of end-cap groups selected from the group consisting of hydrogen, linear or branched alkyl group containing 1 to 20 carbon atoms, linear or branched alkoxy group containing 1 to 20 carbon atoms, cyano group, halogen group, monovalent aromatic group, and monovalent aromatic complex ring group having one nitrogen atom as a hetero-atom.